

Amendments to the Specification:

Please replace the paragraphs indicated below for the paragraphs previously presented. Changes are shown with additions double underlined and deletions in ~~striketrough-text~~. No new matter is added by these amendments; rather, the amendments are being made pursuant to the Examiner's request, and merely clarify information that was presented in the originally filed specification.

[0028] Turning to Figure 4, a diagrammatic representation of an inspection system constructed in accordance with a further aspect of the present invention is shown. Figure 4 shows in further detail a diagrammatic representation of the lower portion of an inspection head 110 used in conjunction with an inspection system, and more particularly, an array of sample probes and how they interact with the tablets passing along a conveyer. The probe array is generally referred to in Figure 4 as reference number 500. In the example of Figure 4, a product package 515, such as a filled but yet un-sealed blister package, contains fifteen (15) individual tablets in a three-by-five arrangement. Various other arrangements of the tablets are contemplated and the three-by-five arrangement of Figure 4 is shown merely as an example. The tablets in the package ~~215~~ 515 are arranged into five rows. From left to right in Figure 4, column one includes tablets 525a, 525b, and 525c, column two contains tablets 530a, 530b, and 530c, column three contains tablets 535a, 535b, and 535c, column four contains tablets 540a, 540b, and 540c, and column five contains tablets 545a, 545b, and 545c. Corresponding to each of the fifteen tablets in Figure 2 is a sample probe. From left to right, the sample probes also are divided into five columns with three sample probes in each column. Column one contains sample probes 625a, 625b, and 625c, column two contains sample probes 630a, 630b, and 630c,

column three contains sample probes 635a, 635b, and 635c, column four contains sample probes 640a, 640b, and 640c, and column five contains sample probes 645a, 645b, and 645c. As the conveyer system moves the package 515 into position under the inspection head 110, the fifteen sample probes are positioned to correspond respectively to a similarly positioned tablet in the package 515. Namely, the samples probes are positioned substantially above the correspondingly positioned tablet.

[0035] The column-by-column groupings of fiber optic cables are in turn connected to a corresponding light energy aggregator 762, 764, 766, 768, or 770. Each of the light energy aggregators operate to combine the light energy gathered by the fiber optic cables from a particular column and output the combined light energy through a single output terminal. Further details of a preferred embodiment of a light energy aggregator constructed in accordance with the present invention are described in conjunction with Figures 8-12. Briefly, and as shown in Figure 5, the combined output light energy from the light energy aggregator 762 is directed through a single fiber optic cable 771 and through an entrance slit 763 of a spectrometer 772. The combined light energy is subsequently analyzed by the spectrometer 772. The combined output light energy from the light energy aggregator 764 is directed through a single fiber optic cable 773 and through an entrance slit 765 of a spectrometer 774. The combined light energy is subsequently analyzed by the spectrometer 774. The combined output light energy from the light energy aggregator 766 is directed through a single fiber optic cable 775 and through an entrance slit 767 of a spectrometer 776. The combined light energy is subsequently analyzed by the spectrometer 776. The combined output light energy from the light energy aggregator 768 is directed through a single fiber optic cable 777 and through an entrance slit 769 of a spectrometer

778. The combined light energy is subsequently analyzed by the spectrometer 778. The combined output light energy from the light energy aggregator 770 is directed through a single fiber optic cable 779 and through an entrance slit ~~781~~ 771 of a spectrometer 780. The combined light energy is subsequently analyzed by the spectrometer 780.

[0036] A processor 790 is coupled to each of the five spectrometers 772, 774, 776, 778, and 780 by data cables 782, 784, 786, 788, and 789 and further analyzes the combined light energy received by the spectrometers. The processor 790 then compares these results to a pre-determined or pre-assigned value that represents an acceptable measurement of the package (i.e. a package with an acceptable level of defects). The comparison value can either be obtained by a calibration run as described above or can be input into the processor based on known values. If the defect level does not conform to the comparison value, a rejection unit 794 coupled to the processor 790 via link 792 sends a signal to the packaging line to discard or remove the package with the defect.

[0047] Figure 8 shows a general schematic representation of a light energy aggregator 1500 utilized in an inspection system constructed in accordance with the present invention. The light energy aggregator 1500 collects the light signals transmitted by a number of fiber optic input cables, aggregates the light signals, and transmits the aggregated light signals as a single light energy output. Preferably, the light energy output represents an average reflectance value obtained through the several fiber optic input cables. The light energy aggregator 1500 includes a housing 1535 having an input end 1536 and an output end 1538. The input end 1536 includes input terminals 1520, 1522, 1524, 1526, and 1528 which connect fiber optic input cables 1502,

1504, 1506, 1508, and 1510 respectively to the light energy aggregator housing 1535. A fewer or greater number of input terminals also are contemplated. The input terminals are preferably an SMA or other type of known fiber optic connection device. The output end 1538 includes a single output terminal 1532 connected to an output fiber optic cable 1530. Alternatively, the individual light input optical fibers 1502-1510 may be combined into the single output bundle 1530 without the use of any intervening fiber optic connectors. An optional reflective chamber 1501 is applicable to an alternative embodiment (described below) of light energy aggregator 1500.

[0051] The splitter block embodiment of a light energy aggregator 1500 depicted in figures 9-12 is one example of such a light energy aggregator, ~~and other~~ Other embodiments of a device that combines the light energy from two or more sample probes are contemplated by the present invention. For example, with reference to Figure 8, another embodiment of a light energy aggregator 1500 uses a reflective chamber 1501 to receive collected light energy from each of the sample probes. As all of the light energy is combined within the ~~light reflective~~ chamber 1501, a single output distributes the aggregated light energy and directs it through a single fiber optic strand in output fiber optic cable 1530. This single fiber optic strand is then directed to the entrance slit of a spectrometer. Such an embodiment of a light energy aggregator 1500 is beneficial since it reduces the complexity of the entrance slit connection. The reflective chamber 1501 is preferably highly polished, such as a gold plated finish or electro-polished stainless steel, so that light energy losses are kept to a minimum.